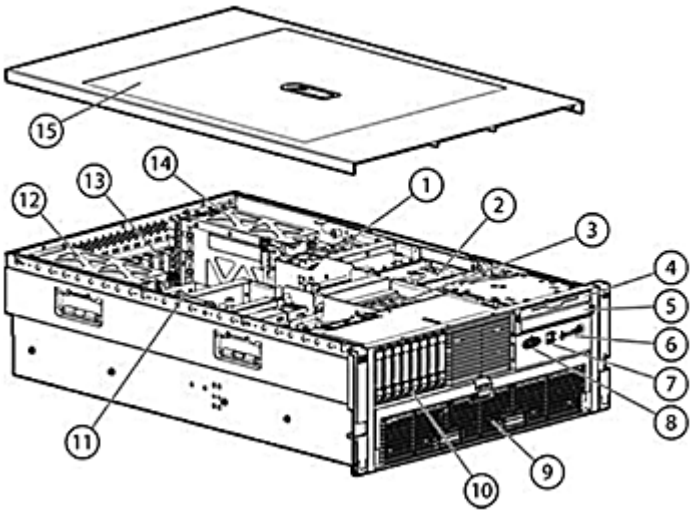
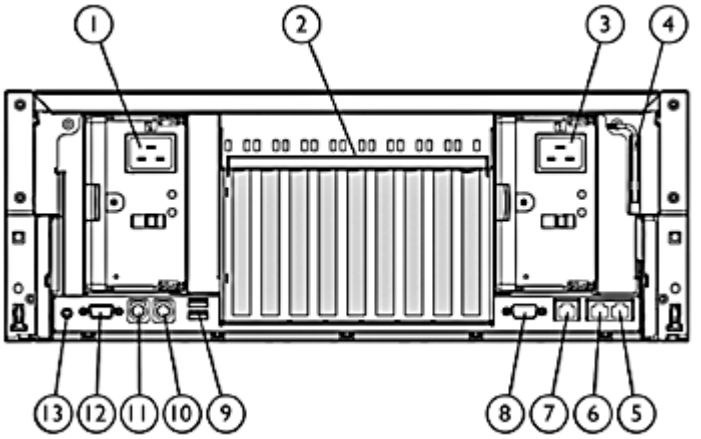
Overview





Front View:

1. Hot Plug Redundant Fans (standard)
2. System Insight Display
3. Hot Plug Redundant Fans (standard)
4. 1.44 MB Diskette Drive bay
5. DVD/CD-RW drive (standard)
6. Front Panel LED Display (internal and external health, Unit ID light) and Power Button
7. Two USB ports
8. One video port
9. Front accessible processor / memory cage
10. Eight bay Small Form Factor (SFF) Serial Attached SCSI (SAS) drive cage
11. 4U (7" Height) Rack Form Factor
12. Hot Plug Redundant Power Supply
13. Nine PCI I/O Slots (2 64-bit/100MHz PCI-X, 4 PCI-Express x4, 3 PCI-Express x8)
14. Hot Plug Redundant Power Supply
15. Removable Top Access Panel

Rear View:

1. Redundant hot-plug power supply (optional)
2. PCI Express and PCI-X non-hot-plug expansion slots
3. Hot-plug power supply (primary)
4. T-15 Torx screwdriver
5. NIC connector 2
6. NIC connector 1
7. Integrated Lights-Out 2 (iLO 2) connector
8. Serial connector
9. USB connectors (two)
10. Mouse connector
11. Keyboard connector
12. Video connector
13. Rear UID button and LED

What's New

- Now with support for AMD's latest quad-core 8300 series processors and built on 45nm process technology for better virtualization performance, higher clock frequency, power efficiency, and improved TCO.

At A Glance

Overview

The HP ProLiant DL585 G5 is a highly manageable, rack optimized, four-socket server designed for maximum performance in an industry standard architecture.

With up to four (4) Quad-Core AMD Opteron™ processors and a large memory footprint, the DL585 G5 delivers the performance and performance-per-watt needed for compute-hungry database, virtualization, and consolidation applications.

Its industry leading remote management functions help reduce costs and improve the ability to respond quickly to business changes.

- Processors:
  - Quad-Core AMD Opteron™ 8300 Series Processors
  - Up to 6MB shared L3 cache
  - Up to 3.1GHz clock speed
  - New Low-power HE options now available
- Memory:
  - Up to 256 GB of memory,
  - 32 slots of PC2-5300 or PC2-6400 registered DIMMs up to 800MHz
- Storage Controller:
  - 2.2GHz Models: HP Smart Array P400/256 MB Controller (in PCI-Express slot 9)
  - 2.3GHz, 2.4GHz, 2.5GHz Models: HP Smart Array P400/512 MB Controller with BBWC (in PCI-Express slot 9)
- Internal Drive Support:
  - Up to 4.0TB internal storage
  - Slimline optical drive bay, DVD/CD-RW standard on some models
- Network Controller:
  - Two embedded NC371i Multifunction Gigabit Network Adapters with TCP/IP Offload Engine, including support for Accelerated iSCSI through an optional Licensing Kit
- Expansion Slots:
  - 9 total slots: (3) x8 PCI-Express; (4) x4 PCI-Express; (2) PCI-X (100MHz)
  - One slot populated with the Smart Array P400 Controller
- Ports:
  - USB: (5) Total USB 2.0 Ports: (2) front; (2) rear; (1) internal
  - Video: One front and one rear video ports
- Redundancy:
  - Redundant hot plug power supplies and fans
- Infrastructure Management:
  - Convenient slide-out Systems Insight Display for quick and easy front view server diagnostics, along with status LEDs, Automatic Server Recovery (ASR), ROM Based Setup Utility (RBSU)
  - HP ProLiant Onboard Administrator (powered by the HP Integrated Lights-Out 2 management processor) for simplified server setup, health monitoring and recovery, power and thermal control, and lights-out remote administration.
  - HP Insight Control a product option, delivers essential infrastructure management that can help save time and money by making it easy to deploy, migrate, monitor, control and optimize your IT infrastructure through a single, simple management console. Insight Control supports both Windows and Linux-based central management servers.
  - HP Insight Dynamics for ProLiant, a product option, is an integrated command center that enables IT Staff personnel to continuously analyze and optimize a converged infrastructure, while automating and reducing the cost of common data center tasks by as much as 40 percent. This ultimately enables them to dynamically keep pace with the organization's changing business requirements.
- Form Factor:
  - Delivering maximum performance in a versatile, rack optimized form factor
- Deployment/Serviceability:
  - System Insight Display on the front bezel for quick and easy server diagnostics
  - Tool-less and virtually cable-less internal design
  - Rapid Deployment racking solution (rack rails and cable management)
  - Customer Self Repair (CSR): HP products are designed with many CSR parts to minimize repair time and allow for

greater flexibility in performing defective parts replacement

- Warranty:
  - This product is covered by a global limited warranty and supported by HP Services and a worldwide network of HP Authorized Channel Partners resellers. Hardware diagnostic support and repair is available for three years from date of purchase. Support for software and initial setup is available for 90 days from date of purchase. Enhancements to warranty services are available through HP Care Pack services or customized service agreements. Hard drives have either a one year or three year warranty; refer to the specific hard drive QuickSpecs for details.
    NOTE: Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response. Warranty repairs may be accomplished through the use of Customer Self Repair (CSR) parts. These parts fall into two categories: 1) Mandatory CSR parts are designed for easy replacement. A travel and labor charge will result when customers decline to replace a Mandatory CSR part; 2) Optional CSR parts are also designed for easy replacement but may involve added complexity. Customers may choose to have HP replace Optional CSR parts at no charge.
    Additional information regarding worldwide limited warranty and technical support is available at:
    http://h18004.www1.hp.com/products/servers/platforms/warranty/index.html.

Standard Features

NOTE: For a brief, printer friendly data sheet that describes this product and informs you of the essential capabilities and specifications, please visit: http://h71028.www7.hp.com/ERC/downloads/4AA0-7461ENW.pdf.

Processor Two or four of the following depending on model	AMD Opteron™ 8393 SE Quad-Core Processor (3.1 GHz, 105 W ACP) AMD Opteron™ 8389 Quad-Core Processor (2.9 GHz, 75 W ACP) AMD Opteron™ 8387 Quad-Core Processor (2.8 GHz, 75 W ACP) AMD Opteron™ 8381 HE Quad-Core Processor (2.5 GHz, 55 W ACP) AMD Opteron™ 8386 SE Quad-Core Processor (2.8 GHz, 105 W ACP) AMD Opteron™ 8384 Quad-Core Processor (2.7 GHz, 75 W ACP) AMD Opteron™ 8382 Quad-Core Processor (2.6 GHz, 75 W ACP) AMD Opteron™ 8380 Quad-Core Processor (2.5 GHz, 75 W ACP) AMD Opteron™ 8378 Quad-Core Processor (2.4 GHz, 75 W ACP) AMD Opteron™ 8376 HE Quad-Core Processor (2.3 GHz, 55 W ACP) AMD Opteron™ 8360 SE Quad-Core Processor (2.5 GHz, 105 W ACP) AMD Opteron™ 8358 SE Quad-Core Processor (2.4 GHz, 105 W ACP) AMD Opteron™ 8356 Quad-Core Processor (2.3 GHz, 75 W ACP) AMD Opteron™ 8354 Quad-Core Processor (2.2 GHz, 75 W ACP) AMD Opteron™ 8347 HE Quad-Core Processor (1.9 GHz, 55 W ACP) NOTE: Support for 2 or 4 processors NOTE: AMD Opteron™ 8300 Series Processors are 64-bit, Quad-Core, and support AMD Virtualization™. NOTE: Processor wattage references reflect Average CPU Power (ACP). For more information on ACP, please see: http://www.amd.com/powernow.
Cache Memory One of the following depending on model	512 KB integrated level 2 cache per core 2 or 6 MB shared level 3 cache per processor (depends on model)
Chipset	nVidia NForce Professional 2200 and 2050 chipsets, and AMD-8132 chipset
Memory Protection & Functionality	Advanced ECC

Memory	Type One of the following depending on model	PC2-5300 Registered DIMMs at 667 MHz PC2-6400 Registered DIMMs at 800 MHz
	Standard One of the following depending on Model	4 GB (4 x 1 GB) 8 GB (8 x 1 GB) 16 GB (8 x 2 GB)
	Maximum	256 GB (32 x 8 GB)

Standard Features

Network Controller

Two embedded NC371i Multifunction Gigabit Network Adapters with TCP/IP Offload Engine, including support for Accelerated iSCSI through an optional Licensing Kit

Expansion Slots

Expansion Slots #	Technology	Bus Width***	Connector Width	Bus Number*	Device No.**	Form Factor	Notes
1	PCI-X (100MHz, 3.3 Volt)	64-bit	N/A	66	1	Half length, full height	
2	PCI-X (100MHz, 3.3 Volt)	64-bit	N/A	66	2	Full length, full height slot	
3	PCI Express	x4	x8	73	0	Full length, full height slot	100MHz
4	PCI Express	x4	x8	76	0	Full length, full height slot	100MHz
5	PCI Express	x8	x16	70	0	Full length, full height slot	100MHz
6	PCI Express	x4	x8	79	0	Full length, full height slot	100MHz
7	PCI Express	x8	x16	2	0	Full length, full height slot	100MHz
8	PCI Express	x8	x16	5	0	Full length, full height slot	100MHz
9	PCI Express	x4	x8	8	0	Half length, full height	Reserved slot for Smart Array P400 Controller

* Default bus assignment (in decimal). Inserting cards with PCI bridges may alter the actual bus assignment number
** Slots are enumerated differently based on OS. MS OS's enumerate from lowest to highest Device ID by bus (starting with the lowest bus).
*** Indicates the number of physical electrical lanes running to a PCI-e connector.

Storage Controllers
One of the following depending on Model

HP Smart Array P400/256 MB Controller (in PCI-Express slot 9)
NOTE: Standard on 2.2GHz models.

HP Smart Array P400/512 MB Controller with BBWC (in PCI-Express slot 9)
NOTE: Standard on 2.3GHz, 2.4GHz, and 2.5GHz models.

Standard Features

Storage Data Protection	The Battery-Backed Write Cache (BBWC) Enabler for the Smart Array P400 Controller protects up to 512-MB write cache memory from hard boot, power, controller, or system board failures. • Standard on most HP ProLiant DL585 G5 models • Battery charge/life: Up to 72 hours/3 years • Transportable data protection • Increases overall controller performance NOTE: Safely transport your write cache data to another HP ProLiant DL585 G5 in the data center by removing the BBWC and Smart Array P400 Controller Memory Module simultaneously.		
Storage	Diskette Drive	1.44MB Diskette Drive bay available	
	Optical Drive	Slimline DVD/CD-RW Drive Standard on some models - ejectable for security and serviceability	
	Hard Drives	None ship standard	
	Hard Disk Drive Backplane	Internal SAS backplane supports up to eight SFF hard disk drives	
Maximum Internal Storage Type	Hot Plug SFF SAS	2.4TB	8 x 300GB
	Hot Plug SFF SATA	4.0TB	8 x 500GB
Interfaces	Serial	1	
	Pointing Device (Mouse)	1	
	Video	1 front, 1 rear	
	Keyboard	1	
	USB 2.0 Ports	2 front, 2 rear, 1 internal	
	iLO 2 Remote Management	1	
	Network RJ-45	2	
Graphics	Integrated ATI-RN50 with 32MB DDR memory		
Form Factor	Rack (4U = 7 inches), ships with sliding rails and cable management system Space saving form factor (4U) provides space efficiencies while providing maximum deployment flexibility		
HP Insight management software	HP Insight Foundation	Managing the growing number of servers can be complex and expensive for your organization. IT managers need to address changing business needs with tools that meet the challenges of managing today's complex Datacenters. HP provides management solutions that are designed to simplify a server's installation, configuration and maintenance throughout the entire server lifeccyle. This provides the customer with higher levels of operational efficiency and highly reliable systems: http://www.hp.com/go/foundation.	

	The foundation pack includes: • HP SmartStart • HP Management • HP ProLiant Firmware Maintenance SmartStart version supported (minimum): SmartStart 7.60. http://www.hp.com/servers/smartstart
ProLiant Onboard Administrator	HP ProLiant Onboard Administrator (powered by the HP Integrated Lights-Out 2 management processor) simplifies server setup, health monitoring, power and thermal control, and lights-out remote administration of ProLiant ML, DL, and BL servers. HP ProLiant Onboard Administrator functions without additional software, and can be accessed from any location via a web browser. It works hand-in-hand with HP Systems Insight Manager, Insight Control suites, and the Insight Dynamics for ProLiant helping customers unlock the value of the ProLiant platform and deliver the highest possible quality of IT service to the business. See www.hp.com/go/ProLiantOA
HP Insight Control	HP Insight Control, a product option, delivers essential infrastructure management that can help save time and money by making it easy to deploy, migrate, monitor, remote control, and optimize your IT infrastructure through a single, simple management console. Two versions of Insight Control are available, to serve environments requiring either a Linux-based or a Windows-based central management server: HP Insight Control for Linux, and HP Insight Control. See www.hp.com/go/insightcontrol HP Insight Control includes one year of 24 x 7 HP Software Technical Support and Update Service ensuring rapid access to HP support staff and proactive delivery of software updates. For more information about this service, please visit: http://www.hp.com/services/insight.
HP Insight Dynamics for ProLiant	HP Insight Dynamics for ProLiant, a product option, is an integrated command center that enables IT Staff personnel to continuously analyze and optimize a converged infrastructure, while automating and reducing the cost of common data center tasks by as much as 40 percent. As a powerfully integrated by design toolkit to accelerate complex technology projects and simplify daily operations that ultimately enable IT Staff personnel to dynamically keep pace with the organizations changing business requirements. It enables them to plan capacity and power continuously, balance across physical and virtual resources, and ensure cost-effective high availability. It also enables IT organizations to provision infrastructure consistently and automatically from pools of shared resources using a self-service portal. Resources provisioned can range from a single virtual machine to complex multi-tier environments and their associated physical and virtual resource requirements. In addition to the previous functional benefits, it also provides a cost-effective disaster recovery for physical and virtual environments that works with HP StorageWorks Continuous Access software for both the Enterprise Virtual Array and the XP storage array allowing application environments to be reactivated in minutes with the touch of a button to a remote location.

Standard Features

NOTE: For more information, visit:
http://www.hp.com/go/insightdynamics

Industry Standard Compliance	ACPI 1.0a. Compliant PCI 2.2 Compliant PXE Support WOL Support (with embedded NC371i Multifunction Gigabit Network Adapters) Physical Address Extension (PAE) Support Microsoft® Logo certifications USB 2.0 Support
Intelligent Manageability	HP Systems Insight Manager software SmartStart Redundant ROM Remote Flash ROM Management Agents Integrated Management Log (IML) Automatic Server Recovery-2 (ASR-2) ROM-Based Setup Utility (RBSU) Dynamic Sector Repairing (with Smart Array Controllers) Drive Parameter Tracking (with Smart Array Controllers) Pre-Failure Warranty (covers processors, SAS hard drives and memory) Redundant/adaptive load balancing NIC Support
Availability	• Smart Array P400 Controller with Battery Backed Write Cache (BBWC) provides transportable data protection and increases overall controller performance. Up to 512MB Battery Backed Write Cache protection available on HP ProLiant DL585 G5 models. • Up to eight hot-plug SFF SAS Hard Drives • Dual Hot-Plug Redundant Power Supplies • Hot-Plug Redundant Fans (standard) Fans are N+1 hot plug redundant and individually removable.

Standard Features

Serviceability

- System Insight Display - precisely depicts all major subsystems of the server (PCI I/O, Memory, CPU, Redundant Cooling, Interlock, Thermal) and gives instant visual indication of fault status. Located on top front of server, beneath lid.
- Tool-less, virtually cable-less interior design
  - Tool-less access to interior of server
  - Two ejectable, slimline Media Bay media drives (DVD/CD-RW standard) are removable without the use of tools
  - Front accessible processors and memory
  - PCI Card Guides locks full length PCI cards in place during transit
  - Six individually removable fans connect without cables to the system board
  - Tool-less removal of system board
- Quick Deploy Rails
- Tool-less design "snap in" rail

Security

Power-on password
Keyboard password
Diskette drive control enable/disable
Diskette boot control enable/disable
External USB port enable/disable
Network Server Mode
Serial interface control
Administrator's password
Removable optical drive

Power Supply

910W (low line), 1300W (high line) with 12V main output. Size is 2.8"(H) X 4.9"(W) X 7.5"(L).
NOTE: One Hot Plug Power Supply ships with Standard Models (optional Redundant Hot Plug Power Supply Option Kit available). High Performance models ship with two Hot Plug Power Supplies.

UPS and PDU Power Cord Matrix

Please see the UPS and PDU cable matrix's on the HP Power Protection and Management page. Under Power Cords, click on the "HP Power Cord Matrix" link. That link will list cable descriptions, requirements, and specifications for UPS and PDU units. Please see the following link: www.hp.com/products/powercords.

Server Power Cords

The HP ProLiant DL585 G5 servers ship standard with a 6-foot IEC 320-C14 to IEC320-C19 jumper cord. If you require a power cord, please check the Power Specifications below for the appropriate power cord, or consult the Power Cord Matrix: http://www.hp.com/go/powercordmatrix.

System Fans

Standard	6 Hot plug, redundant fans (individually removable)
Maximum	6 Hot plug, redundant fans (individually removable)

Required Cabling

For required cabling information, refer to the HP Web site at: www.hp.com/servers/dl585

Standard Features

Operating Systems and Virtualization Software Support for ProLiant Servers	Microsoft Windows Server Microsoft Windows Server Hyper V Red Hat Enterprise Linux (RHEL) SUSE Linux Enterprise Server (SLES) Oracle Enterprise Linux (OEL) Solaris Citrix Essentials for XenServer NOTE: For more information on HP's Certified and Supported ProLiant Servers for OS and Virtualization Software and latest listing of software drivers available for your server, please visit our Support Matrix at: www.hp.com/go/ossupport and our driver download site www.hp.com/support/DL585G5
Rack Airflow Requirements	Rack 10000 G2 series Cabinets The increasing power of new high-performance processor technology requires increased cooling efficiency for rack-mounted servers. The 10000 G2 Series Racks provide enhanced airflow for maximum cooling, allowing these racks to be fully loaded with servers using the latest processors. CAUTION: If a third-party rack is used, observe the following additional requirements to ensure adequate airflow and to prevent damage to the equipment: • Front and rear doors: If your 42U server rack includes closing front and rear doors, you must allow 830 square inches (5,350 sq cm) of holes evenly distributed from top to bottom to permit adequate airflow (equivalent to the required 64 percent open area for ventilation). • Side: The clearance between the installed rack component and the side panels of the rack must be a minimum of 2.75 inches (7 cm). CAUTION: Always use blanking panels to fill all remaining empty front panel U-spaces in the rack. This arrangement ensures proper airflow. Using a rack without blanking panels results in improper cooling that can lead to thermal damage. NOTE: For additional information, refer to the Setup and Installation Guide or the Documentation CD provided with the server, or to the server documentation located in the Support section at the following URL: www.hp.com/servers/dl585.
Rack Kit	Quick deploy rail system provides tool-free support for racks with square or round mounting holes (including Compaq/HP 7000, 9000, 10000 G2 and HP series), with an adjustment range of 24" - 36". The ambidextrous cable management arm can be mounted on either the left or right side for improved cable management.
Telco Rack Support	Support for all 2-post Telco racks requires the use of the standard rack kit and an additional option kit from Rack Solutions at: http://www.hp.com/go/rackandpower

Standard Features

Factory Express Portfolio for Servers and Storage

HP Factory Express offers configuration, customization, integration and deployment services for HP servers and storage products. Customers can choose how their factory solutions are built, tested, integrated, shipped and deployed.

Factory Express offers service packages for simple configuration, racking, installation, complex configuration and design services as well as individual factory services, such as image loading, asset tagging, and custom packaging. HP products supported through Factory Express include a wide array of servers and storage: HP Integrity, HP ProLiant, HP ProLiant Server Blades, HP BladeSystem, HP 9000 servers as well as the MSAxxxx, VA7xxx, EVA, XP, rackable tape libraries and configurable network switches.

For more information on Factory Express services for your specific server model, please contact your sales representative or go to: http://www.hp.com/go/factory-express.

HP Enterprise Configurator

The HP eConfigure-Enterprise Configurator now provides factory default racking for our HP hardware portfolio. This approach is aligned with our strategic direction to meet the needs and expectations of our valued customers. If you require "custom" rack configuration, please contact HP's Customer Business Center or an Authorized Partner for assistance. http://www.hp.com/products/configurator.

Service and Support

HP Care Pack services provide total care and support expertise with committed response designed to meet your IT and business needs.

HP Care Pack services include coverage for the HP branded hardware options qualified for the server and purchased at the same time or afterward that are internal to the enclosure. This also includes the 22" and smaller external monitors and tower UPS options up to 3kVA. These items will be covered at the same service level and for the same coverage period as the server. Coverage of UPS Battery is not included, and standard warranty terms & conditions apply. For servers or storage systems installed within a rack, service also covers all HP qualified rack options installed within the same rack.

To fully capitalizing on your HP ProLiant servers' capabilities requires a service partner who thoroughly understands your server technology and systems environment. HP Services, an industry leader in provision of multi vender support solutions, provides a range of support services designed to meet the varying needs of your business. Whether an SMB, or large global corporation, HP has a ProLiant server support offer to help you speedily deploy and maximize system uptime.

Recommended Service - simplify ProLiant solution implementation, maintenance, and management.

- Support: 3-Year 4-Hour response 24x7 Same Business Day Coverage only
- Deployment Service: Installation and Start up only

Enhanced Service - optimize service level to increase IT performance and availability.

- Support: 3-Year Support Plus 24 only

Refer to the information on "Installation & Start-Up" for service on ProLiant server and Microsoft or Linux O/S per the Customer Description and/or Data Sheet; to be delivered on a scheduled basis 8am-5pm, M-F, excluding HP holidays.

NOTE: For a complete listing of service offerings and information visit: http://www.hp.com/services/proliantservices

http://www.hp.com/go/proliant/carepack

Solutions

Designed for enterprise customers running compute- or I/O intensive database and transaction applications, as well as data centers using virtualization and consolidation to reduce server sprawl, the rack optimized 4-processor HP ProLiant DL585 G5 server delivers maximum performance and high availability for highly complex, business critical applications. Specifically, the HP ProLiant DL585 G5 would be excellent for running the following types of applications:

Typical Usage:

- x86 virtualization and consolidation projects
- Electronic Design Automation (EDA)/Semiconductor
- Financial
- Large database applications
- ERP / CRM
- Petrochemical
- Life Science and Material Science
- Video Rendering

Models

NOTE: For the Standard Features shipped in the "Factory Integrated Models", please see the "Configuration Information - Factory Integrated Models" section.

HP DL585 G5 High Performance Models		
DL585R05 O3.1GHz, 8393 SE, 4P, 16GB 534498-001 DL585R05 O2.9GHz, 8389, 4P, 16GB 534499-001 DL585R05 O2.8GHz, 8387 SE, 4P, 16GB 534500-001 DL585R05 O2.8GHz, 8386 SE, 4P, 16GB 513601-001 DL585R05 O2.7GHz, 8384, 4P, 16GB 500924-001 DL585R05 O2.6GHz, 8382, 4P, 16GB 500923-001 DL585R05 O2.5GHz, 8380, 4P, 16GB 500922-001 DL585R05 O2.5GHz, 8360 SE, 4P, 16GB 448190-001 DL585R05 O2.4GHz, 8358 SE, 4P, 16GB 448189-001 DL585R05 O2.3GHz, 8356, 4P, 8 GB 448188-001	Processors Four of the following depending on model	AMD Opteron™ Processor 8386 SE, Quad-Core (2.8 GHz, 105 W ACP) AMD Opteron™ Processor 8393 SE, Quad-Core (3.1 GHz, 105 W ACP) AMD Opteron™ Processor 8389, Quad-Core (2.9 GHz, 75 W ACP) AMD Opteron™ Processor 8387 SE, Quad-Core (2.8 GHz, 75 W ACP) AMD Opteron™ Processor 8384, Quad-Core (2.7 GHz, 75 W ACP) AMD Opteron™ Processor 8382, Quad-Core (2.6 GHz, 75 W ACP) AMD Opteron™ Processor 8380, Quad-Core (2.5 GHz, 75 W ACP) AMD Opteron™ Processor 8360 SE, Quad-Core (2.5 GHz, 105 W ACP) AMD Opteron™ Processor 8358 SE, Quad-Core (2.4 GHz, 105 W ACP) AMD Opteron™ Processor 8356, Quad-Core (2.3 GHz, 75 W ACP)
	Cache Memory One of the following depending on model	6MB shared L3 cache per processor (Opteron 8380 models and up) 2MB shared L3 cache per processor (all others) 512KB dedicated level 2 cache per core
	Memory One of the following depending on model	16 GB (8 x 2 GB) of PC2-6400 DDR SDRAM standard (Opteron 8380 models and up) 16 GB (8 x 2 GB) of PC2-5300 DDR SDRAM standard to 256 GB (Opteron 8360 SE- and 8358 SE-equipped models) 8 GB (8 x 1 GB) of PC2-5300 DDR SDRAM (standard) to 256 GB (Opteron 8356 SE-equipped models)
	Network Controller	Two embedded NC371i Multifunction Gigabit Network Adapters
	Storage Controller	HP Smart Array P400/512 MB Controller with BBWC
	Manageability	HP ProLiant Onboard Administrator (powered by the Integrated Lights-Out 2 management processor: Integrated on system board
	Hard Drives	None ship standard
	Internal Storage	4.0TB SATA; 4.0TB SAS maximum (with optional hard drives)
	Optical Drive	Slimline DVD/CD-RW Drive (8X/24X) (ejectable)
	Power Supply	Two 910W/1300W Power Supplies standard
	Form Factor	Rack 4U

Models

HP DL585 G5 Standard Models	Processors Two of the following depending on model	AMD Opteron™ Processor 8378, Quad-Core (2.4 GHz, 75 W ACP) AMD Opteron™ Processor 8354, Quad-Core (2.2 GHz, 75 W ACP)
DL585R05 O2.4GHz, 8378, 2P, 8GB 500921-001	Cache Memory	512KB Integrated Level 2 Cache per core; 6MB Shared L3 Cache per processor
DL585R05 O2.2GHz, 8354, 2P, 4 GB 448187-001	Memory One of the following depending on model	Opteron 8378: 8 GB (8 x 1 GB) of PC2-6400 DDR SDRAM (standard) to 256 GB Opteron 8354: 4 GB (4 x 1 GB) of PC2-5300 DDR SDRAM (standard) to 256 GB
	Network Controller	Two embedded NC371i Multifunction Gigabit Network Adapters
	Storage Controller	HP Smart Array P400/256 MB Controller
	Manageability	HP ProLiant Onboard Administrator (powered by the Integrated Lights-Out 2 management processor: Integrated on system board
	Hard Drives	None ship standard
	Internal Storage	4.0TB SATA; 4.0TB SAS maximum (with optional hard drives)
	Optical Drive	Slimline DVD/CD-RW Drive (8X/24X) (ejectable)
	Power Supply	One 910W/1300W Power Supply standard (optional Redundant Hot Plug Power Supply Option Kit available)
	Form Factor	Rack 4U

NOTE: This section lists some of the steps required to configure a Factory Integrated Model. To ensure only valid configurations are ordered, HP recommends the use of an HP approved configurator. Contact your local sales representative for information on CTO product offerings and requirements.
NOTE: HP does not allow factory integration of options into standard models listed above. Configure-to-order servers must start with a CTO Chassis.
NOTE: FIO indicates that this option only available as a Factory Installable Option.

Step 1: Base Configuration

Models	HP ProLiant DL585 G5 Rack CTO Chassis	455349-B21
	Factory Integrated Models ship with:	
	Two embedded NC371i Multifunction Gigabit Network Adapters Integrated Lights-Out 2 (iLO 2) Standard management Six (6) Redundant Hot Plug Fans One Hot Plug Power Supply Rack 4U Form Factor	

Step 2: Choose Required Options (only one of the following from each list unless otherwise noted)

Processors	AMD Opteron™ Processor 8393 SE, Quad-Core (3.1 GHz, 105 W ACP) 2P Option Kit, FIO NOTE: If four processors are desired, select one 534505-L21 and one 534505-B21.	534505-L21
	AMD Opteron™ Processor 8389, Quad-Core (2.9 GHz, 75 W ACP) 2P Option Kit, FIO NOTE: If four processors are desired, select one 534506-L21 and one 534506-B21.	534506-L21
	AMD Opteron™ Processor 8387 SE, Quad-Core (2.8 GHz, 75 W ACP) 2P Option Kit, FIO NOTE: If four processors are desired, select one 534507-L21 and one 534507-B21.	534507-L21
	AMD Opteron™ 8381HE Quad-Core Processor (2.5 GHz, 55 W ACP) 2P Option Kit, FIO NOTE: If four processors are desired, select one 534508-L21 and one 534508-B21.	534508-L21
	AMD Opteron™ 8386 SE Quad-Core Processor (2.8 GHz, 105 W ACP) 2P Option Kit, FIO NOTE: If four processors are desired, select one 513602-L21and one 513602-B21.	513602-L21
	AMD Opteron™ 8384 Quad-Core Processor (2.7 GHz, 75 W ACP) 2P Option Kit, FIO NOTE: If four processors are desired, select one 502476-L21 and one 502476-B21.	502476-L21
	AMD Opteron™ 8382 Quad-Core Processor (2.6 GHz, 75 W ACP) 2P Option Kit, FIO NOTE: If four processors are desired, select one 502475-L21 and one 502475-B21.	502475-L21
	AMD Opteron™ 8380 Quad-Core Processor (2.5 GHz, 75 W ACP) 2P Option Kit, FIO NOTE: If four processors are desired, select one 502474-L21 and one 502474-B21.	502474-L21
	AMD Opteron™ 8378 Quad-Core Processor (2.4 GHz, 75 W ACP) 2P Option Kit, FIO NOTE: If four processors are desired, select one 502473-L21 and one 502473-B21.	502473-L21

	AMD Opteron™ 8376 HE Quad-Core Processor (2.3 GHz, 55 W ACP) 2P Option Kit, FIO NOTE: If four processors are desired, select one 513603-L21 and one 513603-B21.	513603-L21
	AMD Opteron™ 8360 SE Quad-Core Processor (2.5 GHz, 105 W ACP) 2P Option Kit, FIO NOTE: If four processors are desired, select one 448195-L21 and one 448195-B21.	448195-L21
	AMD Opteron™ 8358 SE Quad-Core Processor (2.4 GHz, 105 W ACP) 2P Option Kit, FIO NOTE: If four processors are desired, select one 448194-L21 and one 448194-B21.	448194-L21
	AMD Opteron™ 8356 Quad-Core Processor (2.3 GHz, 75 W ACP) 2P Option Kit, FIO NOTE: If four processors are desired, select one 448193-L21 and one 448193-B21.	448193-L21
	AMD Opteron™ 8354 Quad-Core Processor (2.2 GHz, 75 W ACP) 2P Option Kit, FIO NOTE: If four processors are desired, select one 448192-L21 and one 448192-B21.	448192-L21
	AMD Opteron™ 8347 HE Quad-Core Processor (1.9 GHz, 55 W ACP) 2P Option Kit, FIO NOTE: If four processors are desired, select one 502652-L21 and one 502652-B21.	502652-L21
Base Memory	1 GB REG PC2-5300 2 x 512 MB Single Rank Kit	408850-B21
	2 GB REG PC2-5300 2 x 1 GB Single Rank Kit	408851-B21
	2 GB REG PC2-5300 2 x 1 GB Low Power Single Rank Kit	483399-B21
	2 GB REG PC2-6400 2 x 1 GB Kit	497763-B21
	4 GB REG PC2-5300 2 x 2 GB Dual Rank Kit	408853-B21
	4 GB REG PC2-5300 2 x 2 GB Low Power Single Rank Kit	483401-B21
	4 GB REG PC2-6400 2 x 2 GB Kit	497765-B21
	8 GB REG PC2-5300 2 x 4 GB Dual Rank Kit	408854-B21
	8 GB REG PC2-5300 2 x 4 GB Low Power Dual Rank Kit	483403-B21
	8 GB REG PC2-6400 2 x 4 GB Kit	497767-B21
	8 GB REG PC2-6400 2 x 4 GB Low Power Kit	504351-B21
	16 GB REG PC2-5300 2 x 8 GB Dual Rank Kit	408855-B21
	64 GB REG PC2-5300 8 x 8 GB Dual Rank Kit	495605-B21
	NOTE: Memory must be installed in like-pairs, i.e. two of the same size. NOTE: 800MHz memory kits are supported on models configured with Opteron 8386 SE, 8384, 8382, 8380, 8378, 8376 HE processors. Memory bus speeds will operate as follows: 2-4 DIMMs at 800MHz; 6 at 667MHz; 8 at 533MHz. PC2-5300 memory modules operate at 667MHz with up to 4 DIMMs and 533MHz when using additional DIMMs.	

Configuration Information - Factory Integrated Models

Storage Controllers	HP Smart Array P800/512 BBWC Controller	381513-B21
	HP Smart Array P600/256 BBWC Controller	337972-B21
	HP Smart Array P600/512 BBWC Controller, Factory Integrated Only	432103-B21
	HP Smart Array P400/256 MB Controller	405132-B21
	HP Smart Array P400/512 MB Controller with BBWC	411064-B21
	HP 8 Internal Port SAS HBA with RAID NOTE: Transfer rate 1.5 Gb/s SATA, 3Gb/s SAS.	347786-B21
	HP Smart Array P212/Zero Memory Controller	462828-B21
	HP Smart Array P212/256 MB Controller	462834-B21
	HP Smart Array P410/256 MB Controller	462862-B21
	HP Smart Array P410/512 MB with BBWC Controller	462864-B21
	HP Smart Array P411/256 MB Controller	462830-B21
	HP Smart Array P411/512 MB with BBWC Controller	462832-B21
	HP Smart Array 6404/512 FIO CNTRLR	452240-B21
Optical Drives	NOTE: Optical drives are ejectable.	
	Slimline CD-RW/DVD-ROM 24X Combo Drive Option Kit	331903-B21
	Slimline DVD-ROM Drive (8X/24X) Option Kit (Servers)	264007-B21
	HP DVD±R/RW 8X Slim	383975-B21

Step 3: Choose Additional Options for Factory Integration

NOTE: For additional options, please refer to the "Core Options" and "Additional Options" section below.

Core Options

NOTE: Some options may not be factory integratable. Please contact your local sales representative for additional information.

Unique Options	AMD Opteron™ 8393 Quad-Core Processor (3.1 GHz, 105 W ACP) Option Kit	534505-B21
	AMD Opteron™ 8389 Quad-Core Processor (2.9 GHz, 75 W ACP) Option Kit	534506-B21
	AMD Opteron™ 8387 Quad-Core Processor (2.8 GHz, 75 W ACP) Option Kit	534507-B21
	AMD Opteron™ 8381HE Quad-Core Processor (2.5 GHz, 55 W ACP) Option Kit	534508-B21
	AMD Opteron™ 8386 SE Quad-Core Processor (2.8 GHz, 105 W ACP) 2P Option Kit	513602-B21
	AMD Opteron™ 8384 Quad-Core Processor (2.7 GHz, 75 W ACP) 2P Option Kit	513603-B21
	AMD Opteron™ 8382 Quad-Core Processor (2.6 GHz, 75 W ACP) 2P Option Kit	502475-B21
	AMD Opteron™ 8380 Quad-Core Processor (2.5 GHz, 75 W ACP) 2P Option Kit	502474-B21
	AMD Opteron™ 8378 Quad-Core Processor (2.4 GHz, 75 W ACP) 2P Option Kit	502473-B21
	AMD Opteron™ 8376 HE Quad-Core Processor (2.3 GHz, 55 W ACP) 2P Option Kit	513603-B21
	AMD Opteron™ 8360 SE Quad-Core Processor (2.5 GHz, 105 W ACP) 2P Option Kit	448195-B21
	AMD Opteron™ 8358 SE Quad-Core Processor (2.4 GHz, 105 W ACP) 2P Option Kit	448194-B21
	AMD Opteron™ 8356 Quad-Core Processor (2.3 GHz, 75 W ACP) 2P Option Kit	448193-B21
	AMD Opteron™ 8354 Quad-Core Processor (2.2 GHz, 75 W ACP) 2P Option Kit	448192-B21
	AMD Opteron™ 8347 HE Quad-Core Processor (1.9 GHz, 55 W ACP) 2P Option Kit	502652-B21
Processors	AMD Opteron™ 8435 Six-Core Processor (2.6 GHz, 75 W ACP) 2P Option Kit	572373-B21
	AMD Opteron™ 8431 Six-Core Processor (2.4 GHz, 75 W ACP) 2P Option Kit	539848-B21
	AMD Opteron™ 8425HE 2.10GHz Six Core 55 Watts DL585 G6 Processor Option Kit	539849-B21
	AMD Opteron™ 8439SE 2.80GHz Six Core 105 Watts DL585 G6 Processor Option Kit	539847-B21
	AMD Opteron™ 8386 SE Quad-Core Processor (2.8 GHz, 105 W ACP) 2P Option Kit	513602-B21
	AMD Opteron™ 8393 Quad-Core Processor (3.1 GHz, 105 W ACP) Option Kit	534505-B21
	AMD Opteron™ 8389 Quad-Core Processor (2.9 GHz, 75 W ACP) Option Kit	534506-B21
	AMD Opteron™ 8387 Quad-Core Processor (2.8 GHz, 75 W ACP) Option Kit	534507-B21
	AMD Opteron™ 8381HE Quad-Core Processor (2.5 GHz, 55 W ACP) Option Kit	534508-B21
	AMD Opteron™ 8384 Quad-Core Processor (2.7 GHz, 75 W ACP) 2P Option Kit	502476-B21
	AMD Opteron™ 8382 Quad-Core Processor (2.6 GHz, 75 W ACP) 2P Option Kit	502475-B21
	AMD Opteron™ 8380 Quad-Core Processor (2.5 GHz, 75 W ACP) 2P Option Kit	502474-B21
	AMD Opteron™ 8378 Quad-Core Processor (2.4 GHz, 75 W ACP) 2P Option Kit	502473-B21
	AMD Opteron™ 8376 HE Quad-Core Processor (2.3 GHz, 55 W ACP) 2P Option Kit	513603-B21
	AMD Opteron™ 8360 SE Quad-Core Processor (2.5 GHz, 105 W ACP) 2P Option Kit	448195-B21
	AMD Opteron™ 8358 SE Quad-Core Processor (2.4 GHz, 105 W ACP) 2P Option Kit	448194-B21
	AMD Opteron™ 8356 Quad-Core Processor (2.3 GHz, 75 W ACP) 2P Option Kit	448193-B21

Core Options

	AMD Opteron™ 8354 Quad-Core Processor (2.2 GHz, 75 W ACP) 2P Option Kit	448192-B21
	AMD Opteron™ 8347 HE Quad-Core Processor (1.9 GHz, 55 W ACP) 2P Option Kit	502652-B21
Memory	1 GB REG PC2-5300 2 x 512 MB Single Rank Kit	408850-B21
	2 GB REG PC2-5300 2 x 1 GB Single Rank Kit	408851-B21
	2 GB REG PC2-5300 2 x 1 GB Low Power Single Rank Kit	483399-B21
	2 GB REG PC2-6400 2 x 1 GB Kit	497763-B21
	4 GB REG PC2-5300 2 x 2 GB Dual Rank Kit	408853-B21
	4 GB REG PC2-5300 2 x 2 GB Low Power Single Rank Kit	483401-B21
	4 GB REG PC2-6400 2 x 2 GB Kit	497765-B21
	8 GB REG PC2-5300 2 x 4 GB Dual Rank Kit	408854-B21
	8 GB REG PC2-5300 2 x 4 GB Low Power Dual Rank Kit	483403-B21
	8 GB REG PC2-6400 2 x 4 GB Kit	497767-B21
	8 GB REG PC2-6400 2 x 4 GB Low Power Kit	504351-B21
	16 GB REG PC2-5300 2 x 8 GB Dual Rank Kit	408855-B21
	64 GB REG PC2-5300 8 x 8 GB Dual Rank Kit	495605-B21
	NOTE: Memory must be installed in like-pairs, i.e. two of the same size.	
	NOTE: 800MHz memory kits are supported on models configured with Opteron 8386 SE, 8384, 8382, 8380, 8378, 8376 HE processors. Memory bus speeds will operate as follows: 2-4 DIMMs at 800MHz; 6 at 667MHz; 8 at 533MHz. PC2-5300 memory modules operate at 667MHz with up to 4 DIMMs and 533MHz when using additional DIMMs.	
Optical Drives	Slimline CD-RW/DVD-ROM Combo Drive Option Kit	331903-B21
	Slimline DVD-ROM Drive (8X/24X) Option Kit (Servers)	264007-B21
	HP DVD±R/RW 8X Slim	383975-B21
Hard Drives	NOTE: the components of a storage subsystem (e.g. the drive, the HBA/controller, firmware, and the server backplane) should operate at the same data transfer rate or the system bandwidth will be negotiated down to an acceptable level for all components.	
	NOTE: Hard drives have either a one year or three year warranty; refer to the specific hard drive QuickSpecs for details.	
	SAS Hot Plug SFF Enterprise (ENT) Drives	
	HP 300GB 6G SAS 10K SFF DP ENT HDD	507127-B21
	HP 300GB 3G SAS 10K SFF DP ENT HDD	492620-B21
	HP 146GB 6G SAS 15K SFF DP ENT HDD	512547-B21
	HP 146GB 6G SAS 10K SFF DP ENT HDD	507125-B21
	HP 146GB 3G SAS 15K SFF DP ENT HDD	504062-B21
	HP 146GB 3G SAS 10K SFF DP ENT HDD	418367-B21
	HP 72GB 6G SAS 15K SFF DP ENT HDD	512545-B21
	HP 72GB 3G SAS 15K SFF DP ENT HDD	418371-B21

Core Options

	HP 72GB 3G SAS 10K SFF DP ENT HDD	384842-B21
	SAS Hot Plug SFF Midline (MDL) Drives	
	HP 500GB 6G SAS 7.2K SFF DP MDL HDD	507610-B21
	NOTE: Please see the QuickSpecs for Technical Specifications and additional information: http://h18000.www1.hp.com/products/quickspecs/12244_na/12244_na.html	
	SATA Hot Plug SFF Midline (MDL) Drives	
	HP 500GB 3G SATA 7.2K 2.5in MDL HDD	507750-B21
	HP 160GB 3G SATA 7.2K 2.5in MDL HDD	530888-B21
	SATA Hot Plug SFF Entry (ETY) Drives	
	HP 250GB 3G SATA 5.4K SFF ETY HDD	460355-B21
	HP 120GB 1.5G SATA 5.4K SFF ETY HDD	458924-B21
	NOTE: SATA drives have a 1 year warranty. Please see the QuickSpecs for Technical Specifications and additional information: http://h18000.www1.hp.com/products/quickspecs/13021_na/13021_na.html	
	SATA Hot Plug Midline (MDL) Solid State Drives	
	HP 60GB 3G SATA 2.5in MDL 1y Wty SSD	572071-B21
	HP 120GB 3G SATA 2.5in MDL 1y Wty SSD	572073-B21
	NOTE: Please see the QuickSpecs for Technical Specifications and additional information: http://h18000.www1.hp.com/products/quickspecs/13415_na/13415_na.html	
Communications	HP NC110T PCIe Gigabit Server Adapter	434905-B21
	HP NC112T PCIe Gigabit Server Adapter	503746-B21
	HP NC360T PCI Express Dual Port Gigabit Server Adapter	412648-B21
	HP NC364T PCI Express Quad Port Gigabit Server Adapter	435508-B21
	NOTE: There is a maximum of five NC364T PCI Express Quad Port Gigabit Server Adapter NICs allowed in this server.	
	HP NC373F PCI Express Multifunction Gigabit Server Adapter	394793-B21
	HP NC373T PCI Express Multifunction Gigabit Server Adapter	394791-B21
	HP NC382T PCI Express Dual Port Multifunction Gigabit Server Adapter	458492-B21
	10 Gigabit Ethernet Adapters	
	HP NC522SFP Dual Port 10GbE Server Adapter	468332-B21
	NOTE: A minimum of two Gigabytes (2 GB) of server memory is required per each NC522SFP adapter.	
	NOTE: Direct Attach Cable (DAC) for copper environments or fiber transceivers and cables for fiber-optic environments must be purchased separately.	
	NOTE: Please see the QuickSpecs for Technical Specifications and additional information: www.hp.com/go/ProLiantNICs.	

Core Options

Power Supplies	910W (low line), 1300W (high line) Hot Plug Redundant Power Supply - includes Nema 5-15P to IEC320-C19 power cord	348114-001
	910W (low line), 1300W (high line) Hot Plug Redundant Power Supply - includes C14 to C19 IEC power jumper cable	348114-B21
	NOTE: If you require a local power cord, please check the Power Specifications below for the appropriate power cord, or consult the Power Cord Matrix: http://www.hp.com/go/powercordmatrix.	

HP Insight Software	**HP Insight Control server deployment**	
	HP Insight Control server deployment, Electronic License including 1 year of 24x7 Technical Support and Updates	T9082AAE
	NOTE: Electronic and Flexible-Quantity licenses can be used to purchase multiple licenses with a single activation key. NOTE: Electronic software is available in all countries except China and Japan. Customers in China and Japan should order the physical equivalent. NOTE: Customer will receive a license entitlement certificate. The license entitlement certificate must be redeemed online or via fax in order to obtain the license activation key(s). Includes one year of 24 x 7 HP Software Technical Support and Update Service. NOTE: Licenses ship without media. The HP Insight Control Media Kit can be ordered separately, or can be downloaded at: http://www.hp.com/go/insightupdates. NOTE: For additional license options please see the Insight Control QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/12631_na/12631_na.html	
	HP Insight Control for Linux	
	HP Insight Control for Linux, 1-server license, including one year of 24x7 Technical Support and Updates, Electronic	T9084BAE
	HP Insight Control for Linux, No Media, 1-Server license, including one year of 24x7 Technical Support and Updates	464423-B22
	HP Insight Control for Linux, Media pack (DVD) - No licenses included NOTE: Media pack DVD contains the ISO image for HP Insight Control for Linux, HP Systems Insight Manager, HP Insight Control power management, HP Insight Control virtual machine management, and an integrated installer. Servers must be acquired separately. NOTE: Licenses ship without media. The HP Insight Control Media Kit can be ordered separately, or can be downloaded at: http://www.hp.com/go/insightupdates. NOTE: Electronic software is available in all countries except China and Japan. Customers in China and Japan should order the physical equivalent. NOTE: Electronic and Flexible-Quantity licenses can be used to purchase multiple licenses with a single set of activation keys. NOTE: For additional License Kits, including electronic licensing options, please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/13019_na/13019_na.html	464422-B22
	HP Integrated Lights-Out Advanced	
	HP Integrated Lights-Out Advanced, No Media, 1-Server License, including 1 year of 24x7 Technical Support and Updates NOTE: This license allows 1 server to be deployed and managed via HP iLO Advanced. Customer will receive a printed license entitlement certificate via physical shipment. The license entitlement certificate must be redeemed online or via fax in order to obtain the license activation key(s). Includes one year of 24 x 7 HP Software Technical Support Service NOTE: For additional license kits, including electronic delivery options, please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/12362_na/12362_na.html	512485-B21
	HP Insight Rapid Deployment software	
	HP Insight Rapid Deployment software No Media 1-Server License, including 1 year of 24x7 Technical Support and Updates	452151-B21

NOTE: This license allows 1 server to be deployed and managed via RDP. Customer will receive a printed license entitlement certificate via physical shipment. The license entitlement certificate must be redeemed online or via fax in order to obtain the license activation key(s). Includes one year of 24 x 7 HP Software Technical Support Service.
NOTE: For additional license kits, including electronic delivery options, please see the QuickSpecs at:
http://h18000.www1.hp.com/products/quickspecs/11053_na/11053_na.html

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Storage Controllers	SAS Controller	
	Smart Array E500 Controller	
	HP Smart Array E500/256 MB Controller	435129-B21
	Smart Array P400 Controller	
	HP Smart Array P400/256 MB Controller NOTE: The Smart Array P400 Controller supports internal Serial Attached SCSI and Serial ATA drives. It is supported in all HP ProLiant DL585 G5 Models.	405132-B21
	HP Smart Array P400/512 MB Controller with BBWC NOTE: The Smart Array P400 Controller supports internal Serial Attached SCSI and Serial ATA drives. It is supported in all HP ProLiant DL585 G5 Models.	411064-B21
	Smart Array P600 Controller	
	HP Smart Array P600/256 BBWC Controller NOTE: The Smart Array P600 Controller supports internal and external Serial Attached SCSI and Serial ATA drives. It is supported in all HP ProLiant DL585 G5 Models.	337972-B21
	Smart Array P800 Controller	
	HP Smart Array P800/512 BBWC Controller	381513-B21
	Smart Array P212 Controller	
	HP Smart Array P212/Zero Memory Controller	462828-B21
	Smart Array P410 Controller	
	HP Smart Array P410/256 MB Controller	462862-B21
	HP Smart Array P410/512 MB with BBWC Controller	462864-B21
	Smart Array P411 Controller	
	HP Smart Array P411/256 MB Controller	462830-B21
	HP Smart Array P411/512 MB with BBWC Controller	462832-B21
	Optional Upgrades	
	HP SA-P400 and SA-E500 24 In Battery Cable Kit NOTE: This option kit contains a 24" battery cable and adhesive material for installing a battery into the server if a Smart Array P400 is integrated outside of the factory or if the BBWC is not pre-installed from the factory. For all solutions, please refer to the server QuickSpecs and User's Manual for detailed installation instructions.	417836-B21
	512 MB DDR BBWC Upgrade NOTE: For Smart Array P400 Controller only. NOTE: If you install the 512MB DDR BBWC as an upgrade to a Smart Array P400/256MB Controller, you must also order part 417836-B21 (HP SA-P400 and SA-E500 24 In Battery Cable Kit).	405148-B21

Battery-backed write cache upgrade NOTE: For Smart Array P400 Controller only. NOTE: If you install the Battery-backed write cache as an upgrade to a Smart Array P400/256MB Controller, you must also order part 417836-B21 (HP SA-P400 and SA-E500 24 In Battery Cable Kit).	383280-B21
512 MB DDR BBWC Upgrade NOTE: For Smart Array P600 Controller only.	372538-B21
256 MB Cache Module NOTE: Supported on HP Smart Array P212 Controller only.	462968-B21
512MB BBWC NOTE: Supported on HP Smart Array P410 Controller and HP Smart Array P411 Controller only.	462967-B21
HP Smart Array Advanced Pack No Media 1-Server license including 1yr 24x7 Technical Support NOTE: This part number can be used to purchase a single license or to order multiple licenses with a single activation key. Customers will receive a license entitlement certificate via e-mail. The license entitlement certificate must be redeemed online or via fax in order to obtain the license activation key(s). Include one year of 24x7 HP Software Technical Support Services.	516471-B21
NOTE: Please see the QuickSpecs for Technical Specifications and additional information: http://h18000.www1.hp.com/products/quickspecs/12700_na/12700_na.html (Smart Array E500 Controller) http://h18000.www1.hp.com/products/quickspecs/12400_na/12400_na.html (Smart Array P400 Controller) http://h18000.www1.hp.com/products/quickspecs/12247_na/12247_na.html (Smart Array P600 Controller) http://h18000.www1.hp.com/products/quickspecs/12616_na/12616_na.html (Smart Array P800 Controller) http://h18000.www1.hp.com/products/quickspecs/13203_na/13203_na.html (Smart Array P212 Controller) http://h18000.www1.hp.com/products/quickspecs/13201_na/13201_na.html (Smart Array P410 Controller) http://h18000.www1.hp.com/products/quickspecs/13202_na/13202_na.html (Smart Array P411 Controller) http://h18000.www1.hp.com/products/quickspecs/13200_na/13200_na.html (Smart Array Advanced Pack)	
SAS HBA	
HP SC08Ge Host Bus Adapter	488765-B21
HP SC44Ge Host Bus Adapter NOTE: When using the SC44Ge with SATA Hard Drives, 1.5G SATA Hard Drives are required. Transfer rate: 1.5 Gb/s SATA, 3 Gb/s SAS.	416096-B21
HP 8 Internal Port SAS HBA with RAID NOTE: When using the 8 Internal Port SAS HBA with SATA Hard Drives, 1.5G SATA Hard Drives are required. Transfer rate: 1.5 Gb/s SATA, 3 Gb/s SAS. NOTE: Transfer rate 1.5 Gb/s SATA, 3Gb/s SAS.	347786-B21
NOTE: Please refer to the HBA QuickSpecs for additional information at: http://www.hp.com/products/hba.	
SCSI Controllers for External Drive/Storage Support	

Additional Options

	Smart Array 6404/256 Controller	273914-B21
	SCSI HBA	
	HP SC11Xe Host Bus Adapter	412911-B21
	NOTE: Recommended HBA for SCSI tape drive connect.	
	NOTE: Please see the following QuickSpecs for Technical Specifications and additional information: http://h18000.www1.hp.com/products/quickspecs/11587_na/11587_na.html (Smart Array 6400 Series) http://h18000.www1.hp.com/products/quickspecs/12566_na/12566_na.html (SC11Xe HBA)	
Power Cords	HP DL585G5 C19-C14 PWRCRD 10FT Kit	313228-B21
HPC Specific Options	HP IB 4X DDR PCI-e Dual Port HCA	409376-B21
	HP IB 4X DDR PCI-e DUAL PORT 0 mem HCA	483513-B21
	NOTE: Please see the QuickSpecs for additional information: http://h18000.www1.hp.com/products/quickspecs/13078_na/13078_na.html	
Tape Storage	NOTE: For the complete listing of Tape Drive offerings, please see: http://www.hp.com/products1/storage/compatibility/tapebackup/ISS/index.html	
	Tape Drives	
	USB Rack-Mount Tape Solutions	
	DAT 320 USB External Tape Drive	AJ823A
	HP StorageWorks 1U USB Rack-Mount Kit with one DAT 160 USB Tape Drive	AG703A
	NOTE: Pre-configured with one DAT 160 USB tape drive.	
	SAS Rack-Mount Tape Solutions	
	NOTE: HP recommends purchasing the HP SC44Ge HBA (416096-B21) for a dedicated SAS HBA for tape.	
	DAT 320 USB External Tape Drive	AJ823A
	HP StorageWorks 1U SAS Rack-Mount Kit with one LTO-4 Ultrium 1760	EH946A
	NOTE: Pre-configured with one LTO-4 Ultrium 1760 SAS tape drive.	
	HP StorageWorks 1U SAS Rack-Mount Kit	AE459A
	NOTE: Supports up to (2) half-height SAS tape drives.	
	HP StorageWorks LTO-2 Ultrium 448 SAS Internal Tape Drive	DW085A
	NOTE: Mounts inside the 1U SAS Rack-Mount Kit (AE459A)	
	HP StorageWorks LTO-3 Ultrium 920 SAS Internal Tape Drive	EH847A
	NOTE: Mounts inside the 1U SAS Rack-Mount Kit (AE459A)	
	For an up-to-date listing of the latest O/S and software support details for HP Ultrium tape drives, please visit: http://www.hp.com/go/connect	
	HP StorageWorks 1/8 G2 Tape Autoloader	
	HP StorageWorks 1/8 G2 LTO-4 Ultrium 1760 SAS Tape Autoloader	AK377A
	HP StorageWorks 1/8 G2 LTO-3 Ultrium 920 SAS Autoloader	AH558A

Additional Options

	HP StorageWorks 1/8 G2 Tape Autoloader Rack Kit NOTE: Required to install the 1/8 G2 Autoloaders in a standard 19-inch rack; includes rails and rackmount instructions. NOTE: Please reference the Tape Autoloader QuickSpecs at: http://www.hp.com/go/automation for additional information needed to create a complete solution; reference current compatibility information at: http://www.hp.com/go/ebs.	AH166A
	HP StorageWorks MSL2024 Tape Library	
	HP StorageWorks MSL2024 1 LTO-4 Ultrium 1760 SAS Drive Library	AK378A
	HP StorageWorks MSL2024 1 LTO-3 Ultrium 920 SAS Drive Library	AH559A
	HP StorageWorks MSL4048 Tape Library	
	HP StorageWorks MSL4048 2 LTO-4 Ultrium 1760 SAS Drive Library	AK380A
	HP StorageWorks MSL4048 1 LTO-3 Ultrium 920 SAS Drive Library	AH560A
	NOTE: Please reference the MSL Tape Library QuickSpecs at: http://www.hp.com/go/automation for additional information needed to create a complete solution; reference current compatibility information at: http://www.hp.com/go/ebs.	
Disk-Based Backup	**RDX Removable Disk Backup**	
	HP StorageWorks RDX500 External Removable Disk Backup System NOTE: 500GB of Disk Storage. NOTE: Please see the HP RDX Removable Disk Backup System QuickSpecs for additional information: http://h18000.www1.hp.com/products/quickspecs/13036_na/13036_na.html	AJ935A
	D2D Backup	
	HP StorageWorks D2D2502i Backup System NOTE: 2 TB raw capacity/1.5 TB useable capacity.	EJ001A
	HP StorageWorks D2D2504i Backup System NOTE: 4 TB raw capacity/3 TB useable capacity. NOTE: Please see the HP D2D Backup Systems QuickSpecs for additional information: http://www.hp.com/go/d2d	EJ002A

Additional Options

StorageWorks Options	StorageWorks Fibre Channel HBAs	
	NOTE: The following is a list of all Fibre Channel Host Bus Adapters for Windows and Linux. For detailed compatibility information please see: http://h18006.www1.hp.com/storage/saninfrastructure/hba.html	
	Brocade Fibre Channel HBAs	
	HP StorageWorks 81B PCI-e FC HBA Single Port	AP769A
	HP StorageWorks 82B PCI-e FC HBA Dual Port	AP770A
	HP StorageWorks 41B 4Gb PCI-e FC HBA	AP767A
	HP StorageWorks 42B 4Gb Dual-Port PCI-e FC HBA	AP768A
	Emulex Fibre Channel HBAs	
	HP StorageWorks 81E PCI-e FC HBA Single Port	AJ762A
	HP StorageWorks 82E PCI-e FC HBA Dual Port	AJ763A
	HP StorageWorks FC2142 4Gb PCI-e HBA	A8002A
	HP StorageWorks FC2242 Dual Channel 4Gb PCI-e HBA	A8003A
	QLogic Fibre Channel HBAs	
	HP StorageWorks 81Q PCI-e FC HBA Single Port	AK344A
	HP StorageWorks 82Q PCI-e FC HBA Dual Port	AJ764A
	HP StorageWorks FC1142 4Gb PCI-e HBA	AE311A
	HP StorageWorks FC1242 Dual Channel 4Gb PCI-e HBA	AE312A
	StorageWorks SCSI HBA	
	HP U320e SCSI Host Bus Adapter	AH627A
	NOTE: Recommended HBA for MSL SCSI Tape Library connect.	
HP StorageWorks Modular Smart Array	MSA SAN Storage Arrays	
	HP StorageWorks 50 Modular Smart Array	364430-B21
	NOTE: Please see the QuickSpecs for additional options and configuration information at: http://h18000.www1.hp.com/products/quickspecs/12245_na/12245_na.html	
	HP StorageWorks 60 Modular Smart Array	418408-B21
	NOTE: Please see the QuickSpecs for additional options and configuration information at: http://h18000.www1.hp.com/products/quickspecs/12627_na/12627_na.html	
	HP StorageWorks 70 Modular Smart Array	418800-B21
	NOTE: Please see the QuickSpecs for additional options and configuration information at: http://h18000.www1.hp.com/products/quickspecs/12652_na/12652_na.html	
	HP 2012sa Single Controller Modular Smart Array	AJ752A
	HP 2012sa Dual Controller Modular Smart Array	AJ753A
	NOTE: Please see the Modular Smart Array 2000sa QuickSpecs for additional options and configuration information at: http://h18000.www1.hp.com/products/quickspecs/13045_na/13045_na.html	

Additional Options

Uninterruptible Power Systems	**HP R1500 G2 UPS**	
	HP, R1.5kVA UPS, 1U	AF419A
	NOTE: Please see UPS QuickSpecs for additional information: http://h18000.www1.hp.com/products/quickspecs/12507_na/12507_na.html	
	HP R3000 UPS	
	HP R3000 VA UPS, 2U, Low Voltage L5-30	AF422A
	HP R3000 VA UPS, 2U, High Voltage L6-20	AF423A
	NOTE: Please see UPS QuickSpecs for additional information: http://h18000.www1.hp.com/products/quickspecs/10671_na/10671_na.html	
	HP R/T3000 Uninterruptible Power System (UPS)	
	HP R/T3000 UPS, Low voltage	AF452A
	HP R/T3000 UPS, High voltage	AF453A
	NOTE: Please see the QuickSpecs for additional information: http://h18000.www1.hp.com/products/quickspecs/13417_na/13417_na.html	
	HP Rack-Mountable R5500 UPS	
	HP R5500 VA UPS	AF426A
	NOTE: Please see UPS QuickSpecs for additional information: http://h18000.www1.hp.com/products/quickspecs/11871_na/11871_na.html NOTE: For additional information on HP Uninterruptible Power Systems please go to: www.hp.com/servers/rackups.	
Power Distribution Units	**Monitored PDUs**	
	HP Monitored Power Distribution Unit: Full Rack Version	
	HP 17.3 kVA S2324 Monitored PDU- dual input, 3Ø, 24A	AF503A
	HP 8.6 kVA S1324 Monitored PDU- single input, 3Ø, 24A	AF504A
	HP 16.6 kVA S2140 Monitored PDU- dual input, 1Ø, 40A	AF505A
	HP 8.3 S1140 Monitored PDU- single input, 1Ø, 40A	AF506A
	HP Monitored Power Distribution Unit: Half Rack Version	
	HP 17.3 kVA S348 Monitored PDU- single input, 3Ø, 48A	AF916A
	HP 4.9 kVA S124 Monitored PDU- single input, 1Ø, 24A	AF914A
	Modular Power Distribution Units 1U/0U (Up to 32 outlets) NOTE: 1U/0U mounting brackets shipped with the unit (optimized for 10000 G2 and 9000 series racks).	
	2.8 kVA Modular PDU, 24A	252663-D71
	4.9 kVA Modular PDU, 24A	252663-D72
	8.3 kVA Modular PDU, 40A	252663-B21
	NOTE: This mPDU (252663-B21), 40A model has a hardwired input.	
	3.6 kVA Modular PDU, 16A	252663-B24
	NOTE: For additional information on HP Power Distribution Units including accessories please go to: www.hp.com/go/pdu	

Additional Options

HP Rack Series	HP Rack 5000 Series (Graphite Metallic)	
	HP 5642 Rack-Unassembled	358254-B21
	NOTE: Please see the HP Rack 5642 QuickSpecs for additional part numbers and Technical Specifications such as height, width, depth, weight, and color: http://h18000.www1.hp.com/products/quickspecs/12074_na/12074_na.html	
	HP Rack 10000 G2 Series (Carbon/Graphite Metallic)	
	S10614 (14U) Rack Cabinet - Shock Pallet	292302-B22
	10642 G2 (42U) Rack Cabinet - Pallet	AF001A
	10642 G2 (42U) Rack Cabinet - Shock Pallet	AF002A
	10642 G2 (42U) Rack Cabinet - Crated	AF003A
	10642 G2 (42U) Rack Cabinet, with Extension - Shock Pallet	AF004A
	10636 G2 (36U) Rack Cabinet - Pallet	AF011A
	10636 G2 (36U) Rack Cabinet - Shock Pallet	AF012A
	10636 G2 (36U) Rack Cabinet - Crated	AF013A
	10636 G2 (36U) Rack Cabinet, with Extension - Shock Pallet	AF014A
	10622 G2 (22U) Rack Cabinet - Pallet	AF021A
	10622 G2 (22U) Rack Cabinet - Shock Pallet	AF022A
	10642 G2 (42U) Rack Cabinet 1200mm Deep - Shock Pallet	AF034A
	10642 G2 (42U) Rack Cabinet 1200mm Deep - Pallet	AF038A
	10842 G2 (42U) 800mm Wide Rack Cabinet - Pallet	AF041A
	10842 G2 (42U) 800mm Wide Rack Cabinet - Shock Pallet	AF042A
	10647 G2 (47U) Rack Cabinet - Pallet	AF031A
	10647 G2 (47U) Rack Cabinet 1200mm Deep - Shock Pallet	AF044A
	NOTE: Due to handling and shipping requirements, AF044A is only orderable through HP Factory Express. It is not for direct sales. Customer site surveys are required before an order is approved. CTO orders may require additional lead time.	
	10647 G2 (47U) Rack Cabinet 1200mm Deep - Pallet	AF045A
	NOTE: It is mandatory to use a shock pallet when shipping racks with equipment installed.	
	NOTE: xxxxxx-B22 (shock pallet) used to ship racks with equipment installed (by custom systems, VARs and Channels).	
	NOTE: Please see the Rack 10000 G2 QuickSpecs for Technical Specifications such as height, width, depth, weight, and color: http://h18000.www1.hp.com/products/quickspecs/12402_na/12402_na.html	
	NOTE: For additional information regarding Rack Cabinets, please see the following URL: http://www.hp.com/go/rackandpower.	

Additional Options

HP Rack Options	**Keyboards and Monitors**	
	TFT7600 Rackmount Keyboard Monitor	AG052A
	HP TAA TFT7600 Rkmntkybd 17in Monitor	AG067A
	1U Rackmount Keyboard with USB	AG072A
	NOTE: For additional information regarding Rack Options, please see the following URL: http://www.hp.com/go/rackandpower.	
	HP KVM Switch Options	
	2x1x16 IP Console Switch with Virtual Media	AF601A
	4x1x16 IP Console Switch with Virtual Media	AF602A
	2x16 Server Console Switch with Virtual Media	AF600A
	0x2x16 KVM Server Console G2 Switch with Virtual Media and CAC	AF618A
	0x2x32 KVM Server Console G2 Switch with Virtual Media and CAC	AF619A
	1x1Ex8 KVM IP Console Switch G2 with Virtual Media and CAC	AF620A
	2x1Ex16 KVM IP Console Switch G2 with Virtual Media and CAC	AF621A
	4x1Ex32 KVM IP Console Switch G2 with Virtual Media and CAC	AF622A
	PS/2 Virtual Media Interface Adapter, 1 pack NOTE: Requires PS/2 and one USB port on server.	AF604A
	HP Server console switch 0x2x8	AF616A
	HP Server console switch 0x2x16	AF617A
	HP TAA Server console switch 0x2x16	AF626A
	PS/2 Interface Adapter, 1 pack	262588-B21
	PS/2 Interface Adapter, 8 pack	262587-B21
	NOTE: Cat5e cables are required to connect Interface Adapters to Console Switches. Cat5e cables can be found at the following URL: http://www.hp.com/go/kvm.	
	HP 1x4 Server Switch	AF611A
	PS2 Server Console Cable, 6 ft, 2 pack	AF612A
	USB Server Console Cable, 6 ft, 2 pack	AF613A
	NOTE: For additional information regarding KVM switches, Serial Console servers, rack mount monitors, keyboards and all related options please see the following URL: http://www.hp.com/go/kvm.	
	HP Serial Console Server Options	
	HP 16 Port Serial Console Server	AF101A
	HP 48 Port Serial Console Server	AF102A
	Serial Adapter, RJ45-DB9 DCE Female, 1 Pack	AF103A
	Serial Adapter, RJ45-DB9 DCE Female, 8 Pack	AF110A
	NOTE: Cat5e cables are required to connect Serial Adapters to Serial Console Servers. Additional Serial Adapters and Cat5e cables can be found at the following URL: http://www.hp.com/go/kvm.	
	NOTE: For additional information regarding KVM switches, Serial Console servers, rack mount monitors, keyboards and all related options please see the following URL: http://www.hp.com/go/kvm.	

Additional Options

USB and SD Options	HP USB 2-Button Optical Scroll Mouse (Carbonite/Silver)	DC172B
	HP USB 04 Standard Keyboard	DT528A#ABA
	USB 2.0 4-port HUB	DG954A
	HP 1GB USB 2.0 Floppy Drive Key	442085-B21
Service and Support Offerings (HP Care Pack Services)	**Hardware Services On-site Service**	
	4-Hour On-site Service, 5-Day x 13-Hour Coverage, 3 Years, Electronic	U4607E
	4-Hour On-site Service, 7-Day x 24-Hour Coverage, 3 Years, Electronic	U4608E
	Hardware Services 6-Hour Call to Repair On-site Service	
	6-Hour Call to Repair, On-site Service, 7-Day x 24-Hour Coverage, 3 Years, Electronic	U4609E
	Installation & Start-up Services	
	Hardware Installation, Electronic	U4617E
	Installation & Start-Up of a ProLiant server and Microsoft or Linux O/S per the Customer Description and/or Data Sheet. To be delivered on a scheduled basis 8am-5pm, M-F, excl. HP holidays, Electronic	U4618E
	Support Plus	
	Onsite HW support, 8am-9pm, M-F, 4hr response and Microsoft O/S SW Tech support offsite, onsite at HP's discretion, 8am-9pm, M-F 2hr response time excl. HP holidays, Electronic	U4619E
	Support Plus 24	
	Onsite HW support 24x7, 4hr response and Microsoft O/S SW Tech support offsite, onsite at HP's discretion, 24x7 2hr response time incl. HP holidays, Electronic	U4620E
	Onsite HW support 24x7, 4hr response and SuSE Linux SW Tech support offsite, onsite at HP's discretion, 24x7 2hr response time incl. HP holidays, Electronic	U6316E
	Onsite HW support 24x7, 4hr response and Red Hat AS Linux SW Tech support offsite, onsite at HP's discretion, 24x7 2hr response time incl. HP holidays, Electronic	U9239E
	NOTE: For more information, customer/resellers can contact: http://www.hp.com/services/carepack.	

Memory

NOTE: Standard memory configurations listed do not apply to "Factory Integrated Models."

HP ProLiant DL585 G5 Models

Standard Memory (One of the following, depending on Model)

16 GB PC2-5300 DDR2 SDRAM memory running at 667 MHz
16 GB PC2-6400 DDR2 SDRAM memory running at 800 MHz
8 GB PC2-5300 DDR2 SDRAM memory running at 667 MHz
8 GB PC2-6400 DDR2 SDRAM memory running at 800 MHz
4 GB PC2-5300 DDR2 SDRAM memory running at 667 MHz

- DIMMs must be installed in pairs.
- DIMM installed on the same memory bank must have the same part number.
- DIMMs installed in different banks can be of different sizes.
- DIMMs must be installed in decreasing capacity with the largest DIMMs installed in the banks furthest away from each processor.
- DIMM banks are active only when the corresponding processor socket is populated.

NOTE: Memory must be installed in like-pairs, i.e. two of the same size.
NOTE: 800MHz memory kits are supported on models configured with Opteron 8386 SE , 8384, 8382, 8380, 8378, 8376 HE processors. Memory bus speeds will operate as follows: 2-4 DIMMs at 800MHz; 6 at 667MHz; 8 at 533MHz. PC2-5300 memory modules operate at 667MHz with up to 4 DIMMs and 533MHz when using additional DIMMs.

The following memory options are available from HP:

1 GB REG PC2-5300 2 x 512 MB Single Rank Kit	408850-B21
2 GB REG PC2-5300 2 x 1 GB Single Rank Kit	408851-B21
2 GB REG PC2-5300 2 x 1 GB Low Power Single Rank Kit	483399-B21
2 GB REG PC2-6400 2 x 1 GB Kit	497763-B21
4 GB REG PC2-5300 2 x 2 GB Dual Rank Kit	408853-B21
4 GB REG PC2-5300 2 x 2 GB Low Power Single Rank Kit	483401-B21
4 GB REG PC2-6400 2 x 2 GB Kit	497765-B21
8 GB REG PC2-5300 2 x 4 GB Dual Rank Kit	408854-B21
8 GB REG PC2-5300 2 x 4 GB Low Power Dual Rank Kit	483403-B21
8 GB REG PC2-6400 2 x 4 GB Kit	497767-B21
8 GB REG PC2-6400 2 x 4 GB Low Power Kit	504351-B21
16 GB REG PC2-5300 2 x 8 GB Dual Rank Kit	408855-B21
64 GB REG PC2-5300 8 x 8 GB Dual Rank Kit	495605-B21

Memory

Standard Memory Configuration (2.2GHz model) Total Memory = 4 GB								
	1 (Slot furthest from processor)	2	3	4	5	6	7	8 (Slot closest to processor)
Processor 1 Memory Bus	1 GB	1 GB	Empty	Empty	Empty	Empty	Empty	Empty
Processor 2 Memory Bus	1 GB	1 GB	Empty	Empty	Empty	Empty	Empty	Empty
Processor 3 Memory Bus	Empty	Empty	Empty	Empty	Empty	Empty	Empty	Empty
Processor 4 Memory Bus	Empty	Empty	Empty	Empty	Empty	Empty	Empty	Empty

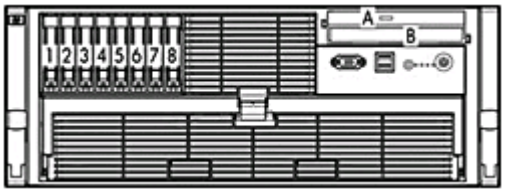
Standard Memory Configuration (2.3GHz model) Total Memory = 8 GB								
	1 (Slot furthest from processor)	2	3	4	5	6	7	8 (Slot closest to processor)
Processor 1 Memory Bus	1 GB	1 GB	Empty	Empty	Empty	Empty	Empty	Empty
Processor 2 Memory Bus	1 GB	1 GB	Empty	Empty	Empty	Empty	Empty	Empty
Processor 3 Memory Bus	1 GB	1 GB	Empty	Empty	Empty	Empty	Empty	Empty
Processor 4 Memory Bus	1 GB	1 GB	Empty	Empty	Empty	Empty	Empty	Empty

Standard Memory Configuration (2.4GHz and 2.5GHzmodels) Total Memory = 16 GB								
	1 (Slot furthest from processor)	2	3	4	5	6	7	8 (Slot closest to processor)
Processor 1 Memory Bus	2 GB	2 GB	Empty	Empty	Empty	Empty	Empty	Empty
Processor 2 Memory Bus	2 GB	2 GB	Empty	Empty	Empty	Empty	Empty	Empty
Processor 3 Memory Bus	2 GB	2 GB	Empty	Empty	Empty	Empty	Empty	Empty
Processor 4 Memory Bus	2 GB	2 GB	Empty	Empty	Empty	Empty	Empty	Empty

Examples of other optional configurations include, but are not limited to:

Memory

Example #1: Optional Memory Configuration with DIMM mixing Standard Memory plus Optional Memory and Processors Total Memory = 34 GB								
	1	2	3	4	5	6	7	8
Processor 1 Memory Bus	2 GB	2 GB	1 GB	1 GB	512 MB	512 MB	512 MB	512 MB
Processor 2 Memory Bus	2 GB	2 GB	1 GB	1 GB	512 MB	512 MB	512 MB	512 MB
Processor 3 Memory Bus	2 GB	2 GB	2 GB	2 GB	1 GB	1 GB	512 MB	512 MB
Processor 4 Memory Bus	1 GB	1 GB	1 GB	1 GB	1 GB	1 GB	512 MB	512 MB
Example #2: Optional Memory Configuration with Partial Bus Population Standard Memory plus Optional Memory and Processors Total Memory = 8 GB								
	1	2	3	4	5	6	7	8
Processor 1 Memory Bus	512 MB	512 MB	512 MB	512 MB	Empty	Empty	Empty	Empty
Processor 2 Memory Bus	512 MB	512 MB	512 MB	512 MB	Empty	Empty	Empty	Empty
Processor 3 Memory Bus	512 MB	512 MB	512 MB	512 MB	Empty	Empty	Empty	Empty
Processor 4 Memory Bus	512 MB	512 MB	512 MB	512 MB	Empty	Empty	Empty	Empty
Example #3: Maximum Memory Configuration Maximum Memory (Standard replaced with Optional Memory) Total Memory = 256 GB								
	1	2	3	4	5	6	7	8
Processor 1 Memory Bus	8 GB	8 GB	8 GB	8 GB	8 GB	8 GB	8 GB	8 GB
Processor 2 Memory Bus	8 GB	8 GB	8 GB	8 GB	8 GB	8 GB	8 GB	8 GB
Processor 3 Memory Bus	8 GB	8 GB	8 GB	8 GB	8 GB	8 GB	8 GB	8 GB
Processor 4 Memory Bus	8 GB	8 GB	8 GB	8 GB	8 GB	8 GB	8 GB	8 GB



A	Ejectable: Slimline Diskette or Optical Drive (Optional)
B	Ejectable: Slimline Optical Drive (DVD/CD-RW Standard)
1-8	SFF SAS Internal Drive cage

Drive Support

	Quantity Supported	Position Supported	Controller
Ejectable Slimline Drives			
1.44-MB slimline Diskette Drive	Up to 1	A or B Based on Boot Device Selector Switch	Integrated
IDE Slimline DVD-ROM Drive (8X/24X)	Up to 2	A or B	Integrated IDE
IDE Slimline CD-RW/DVD-ROM Combo Drive	Up to 2	A or B	Integrated IDE
IDE DVD±R/RW 8X Drive	Up to 2	A or B	Integrated IDE

Hard Drives

NOTE: The components of a storage subsystem (e.g. the drive, the HBA/controller, firmware, and the server backplane) should operate at the same data transfer rate or the system bandwidth will be negotiated down to an acceptable level for all components.

NOTE: Hard drives have either a one year or three year warranty; refer to the specific hard drive QuickSpecs for details.

SAS Hot Plug SFF Enterprise (ENT) Drives

	Quantity Supported	Position Supported	Controller
300GB 6G SAS 10K DP 300GB 3G SAS 10K DP 146GB 6G SAS 15K DP 146GB 6G SAS 10K DP 146GB 3G SAS 15K DP 146GB 3G SAS 10K DP 72GB 6G SAS 15K DP 72GB 3G SAS 15K DP 72GB 3G SAS 10K DP	Up to 8	1-8	HP SC44Ge Host Bus Adapter NOTE: When using the SC44Ge with SATA Hard Drives, 1.5G SATA Hard Drives are required. Transfer rate: 1.5 Gb/s SATA, 3 Gb/s SAS. HP 8 Internal Port SAS HBA with RAID NOTE: Transfer rate 1.5 Gb/s SATA, 3Gb/s SAS. HP Smart Array E500/256MB Controller HP Smart Array P400/256MB Controller HP Smart Array P400/512MB BBWC Controller HP Smart Array P600/256 BBWC Controller HP Smart Array P800/512 BBWC Controller HP Smart Array P212/Zero Memory Controller HP Smart Array P212/ 256 MB Controller HP Smart Array P410/256 MB Controller HP Smart Array P410/512 MB BBWC Controller HP Smart Array P411/256 MB Controller HP Smart Array P411/512 MB BBWC Controller

SAS Hot Plug SFF Midline (MDL) Drives

	Quantity Supported	Position Supported	Controller
500GB 6G SAS 7.2K DP	Up to 8	1-8	HP SC44Ge Host Bus Adapter NOTE: When using the SC44Ge with SATA Hard Drives, 1.5G SATA Hard Drives are required. Transfer rate: 1.5 Gb/s SATA, 3 Gb/s SAS. HP 8 Internal Port SAS HBA with RAID NOTE: Transfer rate 1.5 Gb/s SATA, 3Gb/s SAS. HP Smart Array E500/256MB Controller HP Smart Array P400/256MB Controller HP Smart Array P400/512MB BBWC Controller HP Smart Array P600/256 BBWC Controller HP Smart Array P800/512 BBWC Controller HP Smart Array P212/Zero Memory Controller HP Smart Array P212/ 256 MB Controller HP Smart Array P410/256 MB Controller HP Smart Array P410/512 MB BBWC Controller HP Smart Array P411/256 MB Controller HP Smart Array P411/512 MB BBWC Controller

SATA Hot Plug SFF Midline (MDL) Drives

	Quantity Supported	Position Supported	Controller
500GB 3G SATA 7.2K 160GB 3G SATA 7.2K	Up to 8	1-8	HP Smart Array E500/256MB Controller HP Smart Array P400/256MB Controller HP Smart Array P400/512MB BBWC Controller HP Smart Array P600/256 BBWC Controller HP Smart Array P800/512 BBWC Controller HP Smart Array P212/Zero Memory Controller HP Smart Array P212/ 256 MB Controller HP Smart Array P410/256 MB Controller HP Smart Array P410/512 MB BBWC Controller HP Smart Array P411/256 MB Controller HP Smart Array P411/512 MB BBWC Controller

SATA Hot Plug SFF Entry (ETY) Drives

	Quantity Supported	Position Supported	Controller
250GB 3G SATA 5.4K 120 GB 1.5G SATA 5.4K	Up to 8	1-8	HP SC44Ge Host Bus Adapter NOTE: When using the SC44Ge with SATA Hard Drives, 1.5G SATA Hard Drives are required. Transfer rate: 1.5 Gb/s SATA, 3 Gb/s SAS. HP 8 Internal Port SAS HBA with RAID NOTE: When using the 8 Internal Port SAS HBA with SATA Hard Drives, 1.5G SATA Hard Drives are required. NOTE: Transfer rate 1.5 Gb/s SATA, 3Gb/s SAS.

			HP Smart Array E500/256MB Controller HP Smart Array P400/256MB Controller HP Smart Array P400/512MB BBWC Controller HP Smart Array P600/256 BBWC Controller HP Smart Array P800/512 BBWC Controller HP Smart Array P212/Zero Memory Controller HP Smart Array P212/ 256 MB Controller HP Smart Array P410/256 MB Controller HP Smart Array P410/512 MB BBWC Controller HP Smart Array P411/256 MB Controller HP Smart Array P411/512 MB BBWC Controller

SATA Hot Plug Midline (MDL) Solid State Drives

	Quantity Supported	Position Supported	Controller
60GB 3.0G SATA SSD 120GB 3.0G SATA SSD	Up to 8	1-8	HP Smart Array E500/256MB Controller HP Smart Array P400/256MB Controller HP Smart Array P400/512MB BBWC Controller HP Smart Array P600/256 BBWC Controller HP Smart Array P800/512 BBWC Controller HP Smart Array P212/Zero Memory Controller HP Smart Array P212/ 256 MB Controller HP Smart Array P410/256 MB Controller HP Smart Array P410/512 MB BBWC Controller HP Smart Array P411/256 MB Controller HP Smart Array P411/512 MB BBWC Controller

External Storage

	Quantity Supported	Position Supported	Host Controller or Adapter
50 Modular Smart Array	Up to 2	External	HP Smart Array P600/256 BBWC Controller
	Up to 4		HP Smart Array E500/256MB Controller HP Smart Array P800/512 BBWC Controller
60 Modular Smart Array	Up to 4	External	HP Smart Array E500/256MB Controller HP Smart Array P212/Zero Memory Controller HP Smart Array P212/ 256 MB Controller
	Up to 8		HP Smart Array P600/256 BBWC Controller HP Smart Array P800/512 BBWC Controller HP Smart Array P411/256 MB Controller HP Smart Array P411/512 MB BBWC Controller
70 Modular Smart Array	Up to 2	External	HP Smart Array P600/256 BBWC Controller HP Smart Array P212/Zero Memory Controller HP Smart Array P212/ 256 MB Controller
	Up to 4		HP Smart Array E500/256MB Controller HP Smart Array P800/512 BBWC Controller HP Smart Array P411/256 MB Controller HP Smart Array P411/512 MB BBWC Controller

Storage

HP 2000sa Modular Smart Array Controller	Up to 4	External	HP SC08Ge Host Bus Adapter

Maximum Storage Capacity - (External Enclosures Attached)

Internal	4.0TB (8 x 500GB SFF SAS ENT drives)
External	1120 TB (56 MSA60 enclosures @ 20 drives per enclosure x 1 TB SATA/SAS MDL Drives)
Total	1122.4 TB

Tape and Disk-Based Backup

NOTE: For a complete listing of compatible tape and disk-based backup offerings, please visit: www.hp.com/go/connect

	Position Supported	Controller	Controller Part Number
HP StorageWorks SCSI Tape Drives, External LTO-2 Ultrium 448 LTO-3 Ultrium 960 LTO-3 Ultrium 920 LTO-4 Ultrium 1760 LTO-4 Ultrium 1840 DAT 40 DAT 72 DAT 160 1U Rack-Mount Kit 3U Rack-Mount Kit	External	HP SC11Xe Host Bus Adapter	412911-B21
HP StorageWorks USB Tape Drives, External DAT 40 USB DAT 72 USB DAT 160 USB 1U Rack-Mount Kit	External	USB 2.0 Port	N/A
HP StorageWorks SAS Tape Drives, External DAT 160 SAS LTO-2 Ultrium 448 SAS LTO-3 Ultrium 920 SAS LTO-4 Ultrium 1760 SAS LTO-4 Ultrium 1840 SAS 1U Rack-Mount Kit 3U Rack-Mount Kit	External	HP SC44Ge Host Bus Adapter	416096-B21
HP StorageWorks SCSI Tape Automation, External DAT 72x10 Autoloader 1/8 G2 Autoloader	External	HP SC11Xe Host Bus Adapter HP U320e SCSI Host Bus Adapter NOTE: Recommended for MSL tape libraries.	412911-B21 AH627A

Storage

MSL2024 MSL4048 MSL8096 MSL6000			
HP StorageWorks SAS Tape Automation, External 1/8 G2 Autoloader MSL2024 MSL4048	External	HP SC44Ge Host Bus Adapter	416096-B21
HP StorageWorks Fibre Tape Automation, External MSL2024 MSL4048 MSL8096 MSL6000	External	Please consult the EBS connectivity matrix at: http://www.hp.com/go/ebs for detailed connectivity information.	N/A
HP StorageWorks RDX Removable Disk Backup System RDX160 RDX320 RDX500	External	USB 2.0 Port	N/A
HP StorageWorks D2D Backup Systems D2D120 D2D130 D2D2500i D2D4000i	External	Embedded Network Controller	N/A

Power Specifications

Part number	348114-001
Operational Input Voltage Range (Vrms)	90 to 264
Frequency Range (Nominal) (Hz)	47 to 63 (50/60)

Nominal Input Voltage (Vrms)	**100**	**115**	**208**	**220**	**230**	**240**
Max Rated Output Wattage Rating	910	910	1300	1300	1300	1300
Nominal Input Current (A rms)	11.9	10.2	7.7	7.3	6.9	6.6
Max Rated Input Wattage Rating (Watts)	1163	1148	1566	1566	1548	1548
Max. Rated VA (Volt-Amp)	1186	1172	1598	1598	1579	1579
Efficiency (%)	80	81	83	83	84	84
Power Factor	0.98		0.98			
Leakage Current (mA)	0.43	0.50	0.90	0.96	1.00	1.04
Max. Inrush Current (A peak)	100	100	100	100	100	100
Max. Inrush Current duration (mS)	10					

NOTE: To review typical system power ratings use the HP Power Advisor which is available online located at url: www.hp.com/go/proliant-energy-efficient or www.hp.com/go/hppoweradvisor

- Click on: "ProLiant Servers"
- Click on the Server of interest. Example: DL585 G5
- Click on: "Power Calculator" link. (You may need to scroll down to see it)
- There are certain Dual-core, lowline, max configurations that are not supported. All highline configurations are supported. Consult the Power Calculator to determine if your lowline configuration is supported.

Standard Rack Model Power Cords / Jumper Cords	**Description**
	IEC320-C14 to IEC320-C19 Jumper Cord

Optional Country Power Cords and Jumper Cords	**Description**	**Option Kit Part Number**
	Nema 5-15P to IEC320-C19	235603-001
	Nema 6-20P to IEC320-C19	235604-001
	IEC320-C19 to IEC320-C14 Jumper (10A, IEC, 6 ft/2.0m)	313227-B21
	IEC320-C19 to IEC320-C14 Jumper (10A, IEC, 8 ft/2.5m)	291034-B21
	IEC320-C19 to IEC320-C14 Jumper (10A, IEC, 10 ft/3.0m)	310927-B21
	IEC320-C19 to IEC320-C14 Jumper (10A, IEC, 12ft/3.7m)	313228-B21
	IEC320-C19 to IEC320-C20 Jumper (16A, IEC, 8ft/2.5m)	295633-B22

System Unit	**Dimensions** (H x W x D) (with bezel)	6.94 x 19 x 26.5 in (17.6 x 48.3 x 67.3 cm)	
	Weight (approximate)	Maximum (all hard drives, power supplies, and processors installed)	95 lb (43 kg)
		Minimum (one hard drive, power supply, and processor installed)	79 lb (36 kg)
	Input Requirements (per power supply)	Rated Line Voltage	90 - 132 VAC, 180 - 264 VAC
		Rated Input Current	12 A (at 100 VAC), 8 A (at 200 VAC)
		Rated Input Frequency	47 to 63 Hz
		Rated Input Power	1161 W (at 100 VAC), 1598 W (at 200 VAC)
	BTU Rating	Maximum	3985 BTU/hr (at 100 VAC), 5457 BTU/hr (at 200 VAC)
	Power Specifications	NOTE: To review typical system power ratings use the HP Power Advisor which is available online located at url: www.hp.com/go/proliant-energy-efficient or www.hp.com/go/hppoweradvisor • Click on the system of interest. Example: DL585 G5 • Follow the instructions of the next screens	
	Power Supply Output (per power supply)	Rated Steady-State Power	910 W (at 100 VAC), 1300 W (at 200 VAC)
		Maximum Peak Power	960 W (at 100 VAC), 1420 W (at 200 VAC)
	System Inlet Temperature	Operating	10° to 35°C (50° to 95°F) at sea level with an altitude derating of 1.0°C per every 305 m (1.8°F per every 1000 ft) above sea level to a maximum of 3050 m (10,000 ft), no direct sustained sunlight. Maximum rate of change is 10°C/hr (18°F/hr). The upper limit may be limited by the type and number of options installed. System performance may be reduced if operating with a fan fault or above 30°C (86°F).
		Non-operating	-30° to 60°C (-22° to 140°F). Maximum rate of change is 20°C/hr (36°F/hr).
	Relative Humidity (non-condensing)	Operating	10 to 90% relative humidity (Rh), 28°C (82.4°F) maximum wet bulb temperature, non-condensing.
		Non-operating	5 to 95% relative humidity (Rh), 38.7°C (101.7°F) maximum wet bulb temperature, non-condensing.

	Altitude	Operating	3050 m (10,000 ft). This value may be limited by the type and number of options installed. Maximum allowable altitude change rate is 457 m/min (1500 ft/min).
		Non-operating	9144 m (30,000 ft). Maximum allowable altitude change rate is 457 m/min (1500 ft/min).
	Acoustic Noise	Listed are the declared A-Weighted sound power levels (LWAd) and declared average bystander position A-Weighted sound pressure levels (LpAm) when the product is operating in a 23°C ambient environment. Noise emissions were measured in accordance with ISO 7779 (ECMA 74) and declared in accordance with ISO 9296 (ECMA 109).	
		Idle	
		L WAd	7.7 B
		L pAm	58 dBA
		Operating	
		L WAd	7.7 B
		L pAm	58 dBA
	Emissions Classification (EMC)	FCC Rating	Class A
		Normative Standards	CISPR 22; EN55022; EN55024; FCC CFR 47, Pt 15; ICES-003; CNS13438; GB9254; K22;K24; EN 61000-3-2; EN 61000-3-3; EN 60950-1; IEC 60950-1
		NOTE: Product conformance to cited product specifications is based on sample (type) testing, evaluation, or assessment. This product or family of products is eligible to bear the appropriate compliance logos and statements.	
Slimline CD-RW/DVD-ROM 24X Combo Drive	Shipping Dimensions	13.88 x 11.38 x 9.25 in (35.26 x 28.91 x 23.50 cm)	
	Shipping Weight	5 lb (2.27 kg)	
	Disk	Applicable Disk	DVD-ROM
			DVD-R (Read Only)
			2.6 GB/side DVD-RAM (Read Only)
			5.2 GB/side DVD-RAM (Read Only)
			CD-ROM Mode-1 data disc
			CD-ROM Mode-2 data disc
			CD Audio disc
			CD-Extra
			CD-RW
			CD-R
			CD Text
			PhotoCD
			CD-I (mode 2)
			CD-I Ready
			CD-Bridge

	Capacity	DVD-ROM	DVD-SL	4.7 GB/side
			DVD-DL	8.5 GB/side
			Double Sided	9.40 GB/side
		DVD-R		3.95 GB/side
		DVD-RAM		2.6 GB/side and 5.2 GB/
		CD-ROM	Mode-1	650 MB (550 MB)
			Mode-2	742 MB (640 MB)
	Block Size	DVD		2,048 bytes
		CD		2,352 (Mode-0)
				2352, 2340, 2336, 2048 bytes (Mode-1)
				2352, 2340, 2336, 2048 bytes (Mode-2)
	Diameter	120 mm, 80 mm (with adapter at vertical mounting mode)		
Loading Mechanism	Tray type			
Interface	EIDE (ATAPI)			
Access Times (typical)	Random	DVD-ROM < 120 ms, CD-ROM < 110 ms		
	Full-Stroke	DVD-ROM < 240 ms, CD-ROM < 160 ms		
Audio Output Level (typical)	Line-out	CD 0.7 Vrms at 47 Kohms Load		
Data Transfer Rate (sustained)	DVD-ROM	Single Layer		10.8 MB/sec. Max.
	DVD-RAM	2.77 MB/sec. Max		
	CD-ROM	7.2 MB/sec. Max.		
Cache Buffer	2 MB			
Spin-up Time (typical)	less than 10 seconds			
MTBF	120,000 Power On Hours (POH)			
Ambient Temperature	Operating	-22° to 140° F (-30° to 60° C)		
Relative Humidity	Operating	10% to 80%		
	Storage/Transportation	5% to 95%		
Dimensions	(HxWxD, maximum)	0.5 x 5.04 x 5.1 in (12.7 x 128 x 129.4 mm)		
Option Kit Contents	DVD-ROM drive with installation guide, warranty card, registration card			

Integrated Lights-Out 2 Standard (integrated on system board)	**Architecture**	32-bit PCI-based health and remote management ASIC (Application Specific Integrated Circuit)
	Processor	32-bit RISC processor core running at 66 MHz
	Upgradeability	Option firmware upgradeable via flash ROM

Video Support	Utilizes the host server's embedded video chip. Supports VGA/SVGA, 640 x 480 (256 to 16.7M colors), 800 x 600 (256 to 16.7M colors), 1024 x 768 (256 to 65K colors), 1280 x 1024 (256 colors)
Interfaces	One Ethernet network connection (10/100 Mb/s)
Memory	2-MB Flash ROM
	8-MB SDRAM
Operating System and Virtualization Software Support	Microsoft Windows Server
	Windows Server 2008 Hyper-V
	Red Hat Enterprise Linux (RHEL)
	SUSE Linux Enterprise Server (SLES) Oracle Enterprise Linux (OEL) Solaris 10 for x86/x64 based systems VMware XenSource NOTE: For more information on HP's Certified and Support Operating System & Virtualization Software, visit our Support Matrix at: www.hp.com/go/ossupport For our driver download page www.hp.com/support/DL585G5
Client Browser Support	Microsoft Internet Explorer 6.0 SP1 or later.
	Mozilla Firefox 2.0 or later (on supported Windows and Linux client systems)
	Mozilla Firefox 1.75 or later (for supported Linux client systems)
iLO 2 Standard Features	Virtual Text Remote Console
	Virtual KVM
	Virtual Power Button Control
	Virtual UID Control
	Power Regulator Control
	Dedicated LAN Connectivity
	Secure access using web browser
	Secure access using Secure Shell (SSH) client
	Serial connectivity
	Automatic IP Configuration via DHCP/DNS/WINS
	Industry Standard 128-bit Secure Sockets Layer (SSL) Security
	IML and iLO2 Event Logging
	Support for up to 12 user accounts with customizable access privileges
iLO Advanced Features (optional)	Virtual Graphical Remote Console
	Virtual Floppy/USB Key drive
	Virtual CD-ROM drive
	Directory Services Integration
	Processor States Reporting
	Terminal Services Integration

Technical Specifications

Smart Array P400 Controller	Disk Drive and Enclosure Interface	3G SAS (Serial Attached SCSI) 1.5G SATA (Serial Advanced Technology Attachment)	
	SAS Connectors	2 internal (SFF8484) x4 wide port connectors	
	Cache Memory Speed	DDR2-533MHz with 40 or 72-bit wide bus provides up to 4.2 GB/s maximum bandwidth.	
	Server Interface	x8 2.5G PCIe provides 2GB/s maximum bandwidth.	
	SAS Speed	x8 3G SAS provides 2.4GB/s maximum bandwidth.	
	Cache Memory	40-bit 256MB cache (72-bit 512MB module upgrades available); ECC protection, battery-backed, and transportable	
	Logical Drives Supported	Up to 32 logical drives	
	Maximum Logical Drive Capacity	2TB	
	Host Memory Addressing	64-bit, supporting greater than 4GB server memory space	
	RAID Support	RAID 6 with ADG (Advanced Data Guarding) requires Battery Backed Write Cache Upgrade RAID 5 (Distributed Data Guarding) RAID 1, 1+0 (Striping & Mirroring) RAID 0 (Striping)	
	Upgradeable Firmware	Upgradeable Firmware with recovery ROM feature	
Two embedded NC371i Multifunction Gigabit Server Adapters	Network Interface	10/100/1000-T	
	Compatibility	IEEE 802.3 10Base-T IEEE 802.3ab 1000Base-T IEEE 802.3u 100Base-TX	
	Data Transfer Method	PCI Express, four lanes (x4)	
	Network Transfer Rate	10Base-T (Half-Duplex)	10 Mb/s
		10Base-T (Full-Duplex)	20 Mb/s
		100Base-TX (Half-Duplex)	100 Mb/s
		100Base-TX (Full-Duplex)	200 Mb/s
		1000Base-TX (Half and Full-Duplex)	2000 Mb/s
	Connector	RJ-45	
	Cable Support	10Base-T	Categories 3, 4, or 5 UTP; up to 328 ft (100 m)
		10/100/1000 Base-TX	Category 5 UTP up to 328 ft (100 m)

Environment-friendly Products and Approach	End-of-life Management and Recycling	Hewlett-Packard offers end-of-life HP product return, trade-in, and recycling programs in many geographic areas. For trade-in information, please go to: http://www.hp.com/go/green. To recycle your product, please go to: http://www.hp.com/go/green or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner. The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: http://www.hp.com/go/green. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.

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For hard drives, 1GB = 1 billion bytes. Actual formatted capacity is less.